

RF Exposure Evaluation Report

Product : Projector
Trade mark : N/A
Model/Type reference : AX20, AX22, AX24, AX26, AD2, AD4, AD12, AD14
Serial Number : N/A
Report Number : EED32R80287205
FCC ID : 2BOK8-AX20
Date of Issue : May 21, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF Exposure Guidance v01
Test result : PASS

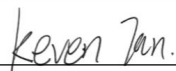
Prepared for:

Shenzhen IFERRET Technology Co., Ltd
Room 601, Building A8, Tianrui Industrial Park, Fuyuan Road, Fuhai Street, Baoan District, Shenzhen, Guangdong

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:



Keven Tan

Reviewed by:



Frazer Li

Approved by:



Aaron Ma

Date:

May 21, 2025



Check No.: 4714050325

1 Version

Version No.	Date	Description
00	May 21, 2025	Original

2 Contents

	Page
1 VERSION	2
2 CONTENTS	3
3 GENERAL INFORMATION	4
3.1 CLIENT INFORMATION	4
3.2 GENERAL DESCRIPTION OF EUT	4
3.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD	4
3.4 TEST LOCATION	6
3.5 DEVIATION FROM STANDARDS	6
3.6 ABNORMALITIES FROM STANDARD CONDITIONS	6
3.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER	6
4 SAR EVALUATION	7
4.1 RF EXPOSURE COMPLIANCE REQUIREMENT	7
4.1.1 Limits	7
4.1.2 Test Procedure	7
4.1.3 EUT RF Exposure Evaluation	8

3 General Information

3.1 Client Information

Applicant:	Shenzhen IFERRET Technology Co., Ltd
Address of Applicant:	Room 601, Building A8, Tianrui Industrial Park, Fuyuan Road, Fuhai Street, Baoan District, Shenzhen, Guangdong
Manufacturer:	Shenzhen IFERRET Technology Co., Ltd
Address of Manufacturer:	Room 601, Building A8, Tianrui Industrial Park, Fuyuan Road, Fuhai Street, Baoan District, Shenzhen, Guangdong
Factory:	Mito Technology (Shenzhen) Co., Ltd.
Address of Factory:	Second Floor, Building 5, Chuangjian II Industrial Zone, Yingrenshi Community, Shiyuan Street, Shenzhen

3.2 General Description of EUT

Product Name:	Projector
Model No.:	AX20, AX22, AX24, AX26, AD2, AD4, AD12, AD14
Test Model No.:	AX20
Trade mark:	N/A

3.3 Product Specification subjective to this standard

Frequency Range:	BLE/BT: 2402MHz~2480MHz 2.4G Wi-Fi: IEEE 802.11b/g/n(HT20)/ax(HE 20): 2412MHz to 2462MHz IEEE 802.11n(HT40)/ax(HE40): 2422MHz to 2452MHz 5G Wi-Fi: U-NII-1: 5150-5250MHz U-NII-3: 5745-5825MHz	
Modulation Type:	BLE: GFSK BT: GFSK, $\pi/4$ DQPSK, 8DPSK 2.4G Wi-Fi: IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax(HE20/HE40): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM) 5G Wi-Fi: IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11ac(VHT20/VHT40): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) IEEE 802.11ax(HE20/HE40): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM)	
Test Power Grade:	Default	
Test Software of EUT:	Adb.exe	
Antenna Type:	FPC antenna	
Antenna Gain:	BLE/BT/2.4G Wi-Fi: 3.63dBi 5G Wi-Fi: U-NII-1: 5.71dBi, U-NII-3: 4.46dBi	
Power Supply:	Adapter:	DC 12V
Sample Received Date:	Mar. 17, 2025	
Sample tested Date:	Mar. 17, 2025 to Apr. 27, 2025	

Remark:

Model No.: AX20, AX22, AX24, AX26, AD2, AD4, AD12, AD14

Only the model AX20 was tested. They have same electrical, PCB and layout, only the model name are different for marketing requirements.

3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and ERP20cm is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.1.3 EUT RF Exposure Evaluation

For Stand alone:

BLE:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@2.4GHz	20	5.13	3.63	6.61	4.5814	3060	0.0015	Pass

BT:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@2.4GHz	20	5.05	3.63	6.53	4.4978	3060	0.0015	Pass

2.4G Wi-Fi:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@2.4GHz	20	15.81	3.63	17.29	53.5797	3060	0.0175	Pass

5G Wi-Fi:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@5GHz	20	14.92	5.71	18.48	70.4693	3060	0.0230	Pass

Note:

- ① EIRP=conducted power+antenna gain;
- ② ERP=EIRP-2.15;
- ③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;
- ④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32R80287201, EED32R80287202, EED32R80287203, EED32R80287204 and only the worst case data was recorded in the report.

Report No. : EED32R80287205

Page 9 of 10

For Simultaneous Transmission:

As MPE ratio (BLE+2.4G Wi-Fi+5G Wi-Fi)= $0.015^2+0.0175^2+0.023^2=0.002 < 1$, it's deemed to fulfil the RF exposure requirement.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;

*** End of Report ***